

AMENDMENT TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in this application.

Listing of Claims:

1-17. (Cancelled)

18. (Currently Amended) A self-hardening calcium phosphate composite, comprising:

an amorphous calcium phosphate;

a second calcium phosphate having a calcium to phosphorous phosphate atomic ratio (Ca:P) of less than or equal to 1.67, wherein the amorphous calcium phosphate and the second calcium phosphate in combination have a calcium to phosphorous phosphate atomic ratio in the range of 1.1 to 1.9;

a supplemental material, said supplemental material comprising demineralized bone matrix; and

a carrier fluid in an amount sufficient to form a paste or putty.

19. (Currently Amended) The composite of claim 18, wherein the amorphous calcium phosphate and the second calcium phosphate in combination have a calcium to phosphorous phosphate atomic ratio (Ca:P) of is less than 1.5.

3 20? (Currently Amended) The composite of claim ~~18~~⁶, wherein the amorphous calcium phosphate has a calcium to phosphorous phosphate atomic ratio (Ca:P) of about 1.55 to 1.65.

4 ~~21~~ (Previously Presented) The composite of claim ~~18~~¹, wherein the second calcium phosphate is selected from the group consisting of calcium metaphosphate, dicalcium phosphate dihydrate, heptacalcium decaphosphate, tricalcium phosphate, monetite, calcium pyrophosphate dihydrate, hydroxyapatite, calcium deficient hydroxyapatite, octacalcium phosphate, and calcium pyrophosphate.

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Cont. 5 ~~22~~ (Currently Amended) The composite of claim ~~21~~⁴, wherein the second calcium phosphate comprises ~~;~~ dicalcium phosphate dihydrate.

6 ~~23~~ (Currently Amended) The composite of claim ~~21~~⁵ ~~22~~, wherein the dicalcium phosphate dihydrate has an average grain size of less than 95 microns.

7 ~~24~~ (Currently Amended) The composite of claim ~~21~~⁶ ~~23~~, wherein the dicalcium phosphate dihydrate has an average grain size of about 35-45 microns.

8 ²⁵ (Currently Amended) The composite of claim ~~18~~¹, wherein the amorphous calcium phosphate and the second calcium phosphate are present in proportions ranging from 5:1 to 1:5 wt/wt, respectively.

9 ²⁶ (Previously Presented) The composite of claim ~~18~~¹, wherein the carrier fluid is selected from the group consisting of pH buffered solution, saline solution, tissue culture medium and serum.

10 ²⁷ (Previously Presented) The composite of claim ~~18~~¹, wherein the carrier liquid is present in an amount in the range of about 0.5 mL to about 2.0 mL liquid per gram calcium phosphate.

11 ²⁸ (Previously Presented) The composite of claim ~~18~~¹, wherein the supplemental material comprises 1-50 vol% of the composite.

12 ²⁹ (Currently Amended) The composite of claim ~~18~~¹¹ ~~28~~, wherein the supplemental material comprises 1-20 vol% of the composite.

13 ³⁰ (Previously Presented) The composite of claim ~~18~~¹, wherein the supplemental material is in particulate form.

cont.

31. (Previously Presented) The composite of claim 18, wherein the supplemental material is in fiber form.
